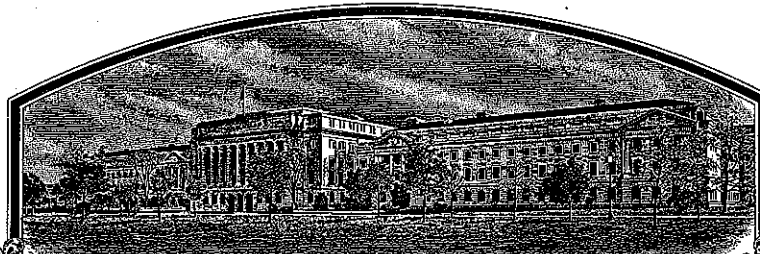


No.

200700441



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Northwest Plant Breeding Co.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET

WHEAT, COMMON

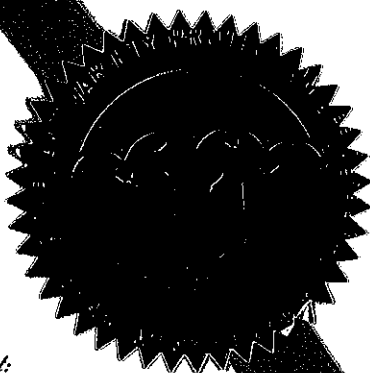
'Fineway'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this fifth day of June, in the year two thousand and eight.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2428).

1. NAME OF OWNER Northwest Plant Breeding Co.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME FINWAY	3. VARIETY NAME FINWAY
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 2001 Country Club Rd. Pullman, WA 99163		5. TELEPHONE (include area code) (509) 334-4404	FOR OFFICIAL USE ONLY PVPO NUMBER #200700441 FILING DATE SEPTEMBER 10, 2007
6. FAX (include area code)			
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation, sub-chapter(S)	8. IF INCORPORATED, GIVE STATE OF INCORPORATION WA	9. DATE OF INCORPORATION 1992	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Tim Loughney, President 2001 Country Club Rd. Pullman, WA 99163 Calvin F. Konzak - Chairman 2001 Country Club Rd. Pullman, WA - 99163			FILING AND EXAMINATION FEES: \$ 4,382.00 DATE 8/29/07 CERTIFICATION FEE: \$ 768.00 DATE 5/15/08
11. TELEPHONE (Include area code) 509 334 4404	12. FAX (Include area code)	13. E-MAIL TimLoughney@gmail.com northwestwheat@gmail.com	
14. CROP KIND (Common Name) Wheat	16. FAMILY NAME (Botanical) Triticum Aestivum	18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP Triticum Aestivum	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input checked="" type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input type="checkbox"/> NO (If "no", go to item 23) <input type="checkbox"/> UNDECIDED	
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Exhibit F. Declaration Regarding Deposit g. <input checked="" type="checkbox"/> Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) h. <input checked="" type="checkbox"/> Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)			

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER 		SIGNATURE OF OWNER 	
NAME (Please print or type) Timothy M. Loughney		NAME (Please print or type) Calvin F. Konzak	
CAPACITY OR TITLE President	DATE 8-6-07	CAPACITY OR TITLE Chairman	DATE 9-6-07
Northwest Plant Breeding Co.			

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). **NEW:** With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

Plant Variety Protection Office
Telephone: (301) 504-5518 FAX: (301) 504-5291
General E-mail: PVPomail@usda.gov
Homepage: <http://www.ams.usda.gov/science/pvpo/PVPindex.htm>

SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, Seed Regulatory and Testing Branch, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. <http://www.ams.usda.gov/lsg/seed.htm>.

ITEM

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Date of 1st sale verified by licensee, see attached email.

24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

The variety is protected by BASF patents for "imi" #5 unknown to us.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Carolyn Wyatt

From: "Tim Loughney" <tloughney@gmail.com>
To: <cjwyatt@adelphia.net>
Sent: Thursday, September 06, 2007 11:11 AM
Subject: Fwd: Fineway

----- Forwarded message -----

From: Dana Herron <dana@tristateseed.com>
Date: Sep 6, 2007 9:45 AM
Subject: Fineway
To: tloughney@gmail.com

Tim,

As per our conversation last month my data search shows that our actual first sale of the variety that we tested as FX001B, now known as Fineway, was on September 27, 2006. If you need any more information that may help in the application process, please do not hesitate to call me.

Thanks again,

Dana L. Herron

EXHIBIT A. ORIGIN AND BREEDING HISTORY OF FINEWAY HARD RED WINTER WHEAT.

FINEWAY (PI: 653509) previously identified as FX001B, a hard red winter wheat (*Triticum aestivum* L.), was developed by Northwest Plant Breeding Co., Pullman, WA. 99163, via the artificial induction of a mutation for tolerance to the imidazolinone herbicide BEYOND™ from the publicly-released hard red winter wheat cultivar 'FINLEY' (PI586757). 'Finley' was developed by Dr. E. Donaldson at Washington State University, with the collaboration of the USDA, and released as a public cultivar in 1999. FINEWAY is one among many wheat cultivars introduced into commercial production under the Trade Name Clearfield™ registered by BASF. The variety is uniform, and stable for the described characteristics, as observed over 5 generations.

Origin: About 4 lbs of Finley breeder seed, obtained from the Washington State Crop Improvement Association facility in Pullman, Washington, was mutagenized in 2000 by Northwest Plant Breeding Co., and the M1 generation grown at Pullman, WA. Thus, Fineway was directly derived from induced mutation(s). In 2001, the M2 generation was screened at the 3-5 leaf stage using a 8oz/A application of the BEYOND™ Herbicide. Single plants tolerant to the herbicide were selected, and transferred to a greenhouse in Pullman for vernalization and seed production. Seedling progeny of the mutants were retested for tolerance to the herbicide at 6 and 12 oz doses, and progeny from the tolerant sublines were vernalized and grown to maturity. The sublines were increased in a field near Pullman, with field testing to confirm their tolerance, then harvested for planting to evaluate their yield and tolerance to the herbicide in field trials conducted by BASF. In those field trials, 16 mutant sublines from the original M2 mutants were compared to the 'parent' cultivar Finley, and 2 cultivars plus a tester line, CV9804, carrying tolerance to the BEYOND™ herbicide. The sublines and tolerant cultivars (Above and Clearfirst), were compared then selected for tolerance to the herbicide at several doses, and rated for injury a 2,4, and 8 weeks after treatment, and for similarity to the 'parent' cultivar, Finley, then all lines were harvested for grain to estimate their comparative yield performance. Yield data for the sublines later combined for the herbicide tolerant cultivar FINEWAY were all superior to that of the 'parent' Finley (Table 1). The bulked sublines were then increased as breeder seed under the designation FX001B, and the increase field, near Connell, WA. subjected to inspection and approved for certification by the Washington State Crop Improvement Association's Variety Certifying Agency located in Yakima, WA. Samples of plants and seed were harvested from the breeder seed field for preparing the description of the variety, as being submitted. Grain harvested from this field was also provided to the Western Wheat Quality Laboratory in Pullman, for quality analyses. New samples of seed were taken from a portion of the increase field for use in a second cycle of breeder seed increase. Seed harvested from this increase was then transferred to a potential licensee, for Foundation seed and additional seed stock cycle increases.

Known Variants: There are white-chaffed plants among them at a frequency of about 1:5000. There is also a low frequency of apparently white seeds. The frequency of white

seeds is about 25/lb, which may be slightly higher than that present in the original Finley variety, which have essentially no impact on quality or other characteristics of Fineway, compared to its 'parent' variety, Finley.

EXHIBIT B. DISTINCTNESS:

FX001B (FINEWAY) is similar to the most closely-related cultivar Finley in nearly all features, except that it is distinct from Finley by its tolerance to the BEYOND™ herbicide, since its Als1 gene for tolerance to the herbicide was induced by artificial mutagenesis in the public cultivar, Finley. Tolerance data are shown in Table 1. Application of the BEYOND™ herbicide allows the grower to control grassy weeds in the wheat crop by applying the herbicide at the 3-5 leaf stage of seedling plant development. FX001B (FINEWAY) is adapted to the Dry Land areas of Washington State, and similar areas of the Pacific Northwest. FX001B (FINEWAY) will carry the same disease resistances as Finley, which include the race-non-specific adult plant type resistance to stripe rust (caused by *Puccinia striiformis* Westland), a particularly serious foliar disease of wheat in the PNW, as confirmed by C. F. Konzak from field observations. Although not yet evaluated for response to other diseases, FX001B (FINEWAY) is expected to also carry the same set of disease resistances and susceptibilities, as well as similar milling and baking quality properties, as Finley, since tolerance to the herbicide was the only trait modified by the mutation. However, it should be noted that the mutation originated as a single plant selection from the M2 generation of a mutagenized 'Finley', Breeder seed population, whereas Finley was selected from a 'bulk F5 population from the cross 'Weston'/'Hatton Sib'/TX69A450-1. As 'Finley' has resistance to common bunt (caused by *Tilletia caries* (C) Tul. & C Tul., and *T. laevis* Kuhn in Rabineh); and to dwarf bunt (caused by *T. controversa* Kuhn in Rabineh) diseases, it is expected that FX001B (FINEWAY) will carry the same levels of resistance to these pathogens. FX001B (FINEWAY) should also carry the high level of winter hardiness of 'Finley', and the moderate susceptibility to leaf rust (caused by *Puccinia recondita* Roberge ex Desmaz) and to stem rust (caused by *P. graminis* Pers.; Pers.). The seedlings should have the desirable long coleoptiles, characteristic of 'Finley', which aid seedling emergence from deep soil seedings in the Dry Land Regions. It is also expected that FX001B(FINEWAY), also has the desirable milling and baking qualities possessed by 'Finley', including the capacity to produce high quality protein grain. Analyses of quality were made on grain of Fineway, harvested in 2004/5 (Table 2). The quality data show that the properties of Fineway are similar to those of Finley.

Description: FX001B(FINEWAY) is a tall, brown chaffed, hard red winter wheat. Foliage is blue-green, but less blue than that of Hatton. At maturity, the heads are less upright than those of Hatton, but not as pendant as those of Weston. Maturity and whole grain protein is expected to be similar to that of Hatton and Weston. FX001B(FINEWAY) has a long, lax, somewhat fusiform-tipped, but nearly strap-like spike, with medium long, midwide, tan-brown glumes. The kernels are elliptical, midlong

with a shallow crease, red and hard in texture. Generally, the phenol reaction is a near black, but a few seeds seem to show a multicolored fawn to black response to the phenol test. The germ is midsized. Straw strength appears to be similar to that of 'Finley', and of Hatton. Volume weight of the grain is similar to that of Finley, and equal to that of Weston. Observations made by C. F. Konzak of seed increases over 5 seasons, indicate that the variety is uniform and stable for type and characteristics.

Because of its tall stature, FX001B (FINEWAY) will be best adapted to the Dry Land areas, as is 'Finley', and should carry the same yield advantages over Hatton and Weston as does 'Finley'. However, the mutant sublines, 5, 8, 21, 30, 40, 42, and 57, selected to blend for the cultivar FX001B, were those with the highest yields, all superior to the 'Finley' check cultivar, in a field trial conducted in Washington in 2002/2003 (Table 1).

FX001B (FINEWAY) will become a PVP Certified cultivar, based on its unique difference from the public cultivar, 'Finley'. Breeder, Foundation, Registered, and Certified seed will be approved for certification under Title V of the Plant Variety Protection Act, and seed is to be sold to commercial grain growers only as Certified seed.

Breeder seed will be maintained by Northwest Plant Breeding Co., Pullman, WA. 99163 Foundation and Registered seed will be maintained by the licensee, who will market Certified seed to commercial wheat producers. In view of the presence of white grains at 25/lb among the Certified seed population available to growers, a new breeder seed stock will be initiated in fall 2008, to improve the uniformity of the seed stock, in keeping with a practice of maintaining a pure seed source for continuing the properties of the variety.

Exhibit E. Statement of Basis of Ownership

11. Additional explanation on ownership:

FX001B (FINEWAY) was developed by Northwest Plant Breeding Co., Pullman, WA 99163. The variety was produced via artificial mutagenesis of the WSU-developed, Publicly-released cultivar 'Finley' (PI586757), which is non-tolerant (susceptible) to, and would be killed by the imidazolinone herbicide, BEYOND, produced by BASF. The induced Als1 gene mutation in Fineway, provides tolerance to the BEYOND herbicide. The tolerance mutation, Als1, has been identified as Als1, located in the D genome of the variety. FX001B (FINEWAY) is a blend of sublines from the initial tolerance mutation, selected after field trials near Lind, Ritzville, and Sprague, WA. in 2002/2003. The blend combines seed of sublines 5, 8, 21, 30, 40 42, and 57, all of which had yields superior to the 'unsprayed' check variety 'Finley', even after spraying with the herbicide, following which none of the check variety survived.

Summary of yield data pooled across 3 trial locations (Table 1) in the 2002/2003 season in Washington State (Data provided courtesy of BASF).

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY
Wheat (*Triticum* spp.)

NAME OF APPLICANT (S) Northwest Plant Breeding Co.	TEMPORARY OR EXPERIMENTAL DESIGNATION FX001B	VARIETY NAME FINEWAY
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) 2001 Country Club Rd. Pullman, WA 99163		FOR OFFICIAL USE ONLY
		PVPO NUMBER #200700441

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. or) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____ Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

☒ 1

- 1 = Common
2 = Durum
3 = Club
4 = Other (Specify) _____

2. VERNALIZATION:

☒ 2

- 1 = Spring
2 = Winter
3 = Other (Specify) _____

3. COLEOPTILE ANTHOCYANIN:

☒ 1

- 1 = Absent
2 = Present

4. JUVENILE PLANT GROWTH:

☒ 1

- 1 = Prostrate
2 = Semi-erect
3 = Erect

5. PLANT COLOR: (boot stage)

☒ 3

- 1 = Yellow-Green
2 = Green
3 = Blue-Green

6. FLAG LEAF: (boot stage)

☒ 2

- 1 = Erect
2 = Recurved
1 = Not Twisted
2 = Twisted
1 = Wax Absent
2 = Wax Present

7. EAR EMERGENCE:

Number of Days (Average)

Number of Days Earlier Than

Same As

Number of Days Later Than

* Hutton

* Weston

*Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

8. ANTHOR COLOR:

☒ 1

- 1 = Yellow
2 = Purple

9. PLANT HEIGHT: (from soil to top of head, excluding awns)

cm (Average)

cm Taller Than

Hutton

Same As

cm Shorter Than

Weston

10. STEM:

A. ANTHOCYANIN

1 = Absent 2 = Present

B. WAXY BLOOM

1 = Absent 2 = Present

C. HAIRINESS (last internode of rachis)

1 = Absent 2 = Present

D. INTERNODE

1 = Hollow

2 = Semi-solid

3 = Solid

Number of Nodes

E. PEDUNCLE

1 = Erect

2 = Recurved

3 = Semi-erect

cm Length

F. AURICLE

Anthocyanin

1 = Absent

2 = Present

Hair:

1 = Absent

2 = Present

11. HEAD: (At Maturity)

A. DENSITY

1 = Lax

2 = Middense (Laxidense)

3 = Dense

B. SHAPE

1 = Tapering

2 = Strap

3 = Clavate

4 = Other (Specify) _____

C. CURVATURE

1 = Erect

2 = Inclined

3 = Recurved

D. AWNEDNESS

1 = Awnless

2 = Apically Awnletted

3 = Awnletted

4 = Awned

12. GLUMES: (At Maturity)

A. COLOR

1 = White

2 = Tan

3 = Other (Specify) _____

B. SHOULDER

1 = Wanting

2 = Oblique

3 = Rounded

4 = Square

5 = Elevated

6 = Apiculate

7 = Other (Specify) _____

E. BEAK WIDTH

1 = Narrow

2 = Medium

3 = Wide

F. GLUME LENGTH

1 = Short (ca. 7mm)

2 = Medium (ca. 8mm)

3 = Long (ca. 9mm)

C. SHOULDER WIDTH

1 = Narrow

2 = Medium

3 = Wide

G. WIDTH

1 = Narrow (ca. 3mm)

2 = Medium (ca. 3.5mm)

3 = Long (ca. 4mm)

D. BEAK

1 = Obtuse

2 = Acute

3 = Acuminate

13. SEED:

#200700441

A. SHAPE

- ☒ 1 = Oval
☐ 2 = Oval
☐ 3 = Elliptical

E. COLOR

- ☒ 1 = White
☐ 2 = Amber
☐ 3 = Red
☐ 4 = Other (Specify) _____

B. CHEEK

- ☒ 1 = Rounded
☐ 2 = Angular

F. TEXTURE

- ☒ 1 = Hard
☐ 2 = Soft
☐ 3 = Other (Specify) _____

C. BRUSH

- ☒ 1 = Short
☐ 2 = Medium
☐ 3 = Long
- ☐ 1 = Not Collared
☐ 2 = Collared

G. PHENOL REACTION (See Instructions)

- ☒ 1 = Ivory
☐ 2 = Fawn
☐ 3 = Light Brown
☐ 4 = Dark Brown
☐ 5 = Black

D. CREASE

- ☒ 1 = Width 60% or less of Kernel
☐ 2 = Width 80% or less of Kernel
☐ 3 = Width Nearly as Wide as Kernel
- ☒ 1 = Depth 20% or less of Kernel
☐ 2 = Depth 35% or less of Kernel
☐ 3 = Depth 50% or less of Kernel

H. SEED WEIGHT

- ☒ 36 g/1000 Seed (Whole number only)

I. GERM SIZE

- ☒ 1 = Small
☐ 2 = Midsize
☐ 3 = Large

14. DISEASE: (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

- | | |
|--|---|
| <input checked="" type="checkbox"/> Stem Rust (<i>Puccinia graminis</i> f. sp. <i>tritici</i>) | <input checked="" type="checkbox"/> Leaf Rust (<i>Puccinia recondita</i> f. sp. <i>tritici</i>) |
| <input checked="" type="checkbox"/> Stripe Rust (<i>Puccinia striiformis</i>) | <input type="checkbox"/> Loose Smut (<i>Ustilago tritici</i>) |
| <input type="checkbox"/> Tan Spot (<i>Pyrenophora tritici-repentis</i>) | <input type="checkbox"/> Flag Smut (<i>Urocystis agropyri</i>) |
| <input type="checkbox"/> Halo Spot (<i>Selenophoma donacis</i>) | <input checked="" type="checkbox"/> Common Bunt (<i>Tilletia tritici</i> or <i>T. laevis</i>) |
| <input type="checkbox"/> <i>Septoria nodorum</i> (Glume Blotch) | <input checked="" type="checkbox"/> Dwarf Bunt (<i>Tilletia controversa</i>) |
| <input type="checkbox"/> <i>Septoria avenae</i> (Speckled Leaf Disease) | <input type="checkbox"/> Karnal Bunt (<i>Tilletia indica</i>) |
| <input type="checkbox"/> <i>Septoria tritici</i> (Speckled Leaf Blotch) | <input type="checkbox"/> Powdery Mildew (<i>Erysiphe graminis</i> f. sp. <i>tritici</i>) |
| <input type="checkbox"/> Scab (<i>Fusarium</i> spp.) | <input type="checkbox"/> "Snow Molds" |
| <input type="checkbox"/> "Black Point" (Kernel Smudge) | <input type="checkbox"/> Common Root Rot (<i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.) |
| <input type="checkbox"/> Barley Yellow Dwarf Virus (BYDV) | <input type="checkbox"/> Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>) |
| <input type="checkbox"/> Soilborne Mosaic Virus (SBMV) | <input type="checkbox"/> Black Chaff (<i>Xanthomonas campestris</i> pv. <i>translucens</i>) |
| <input type="checkbox"/> Wheat Yellow (Spindle Streak) Mosaic Virus | <input type="checkbox"/> Bacterial Leaf Blight (<i>Pseudomonas syringae</i> pv. <i>syringae</i>) |
| <input checked="" type="checkbox"/> Wheat Streak Mosaic Virus (WSMV) | <input type="checkbox"/> Other (Specify) _____ |
| <input checked="" type="checkbox"/> Other (Specify) <u>Adult Stripe Rust Res.</u> | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Other (Specify) _____ | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Other (Specify) _____ | <input type="checkbox"/> Other (Specify) _____ |

15. INSECT: (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

- | | |
|--|--|
| <input type="checkbox"/> Hessian Fly (<i>Mayetiola destructor</i>) | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Stem Sawfly (<i>Cephus</i> spp.) | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Cereal Leaf Beetle (<i>Oulema melanopa</i>) | <input type="checkbox"/> Other (Specify) _____ |

15. INSECT: (continued) 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant

PLEASE SPECIFY BIOTYPE (Where Needed)

#200700441

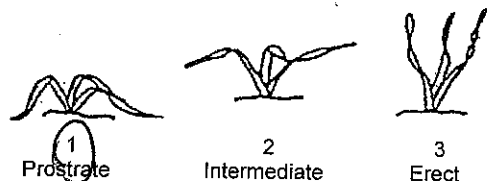
<input checked="" type="checkbox"/> Russian Aphid (<i>Diuraphis noxia</i>)	<input type="checkbox"/> Other (Specify) _____
<input checked="" type="checkbox"/> Greenbug (<i>Schizaphis graminum</i>)	<input type="checkbox"/> Other (Specify) _____
<input checked="" type="checkbox"/> Aphids	<input type="checkbox"/> Other (Specify) _____

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

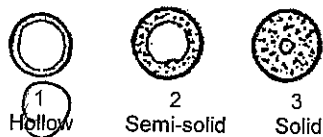
Section Numbers Correspond to the Numbers of the Sections on the Form

#200700441

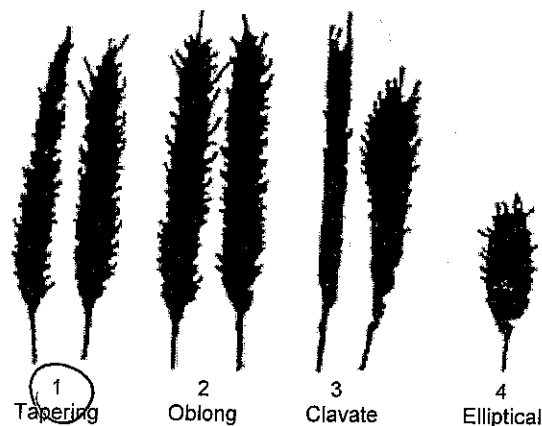
4. EARLY PLANT GROWTH HABIT:



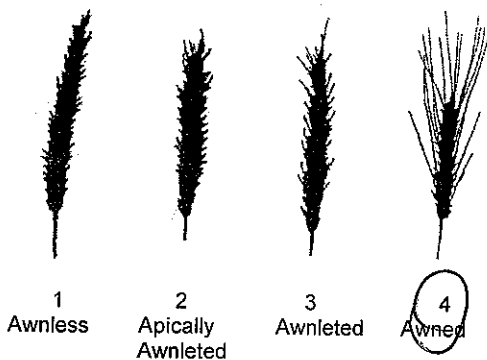
10. STEM INTERNODE X-SECTION:



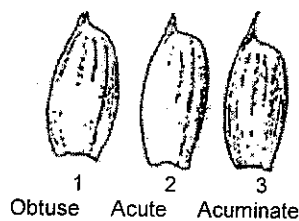
11. SPIKE SHAPE:



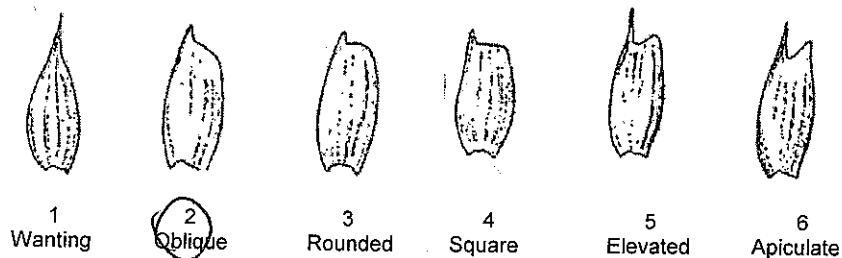
11. AWNEDNESS:



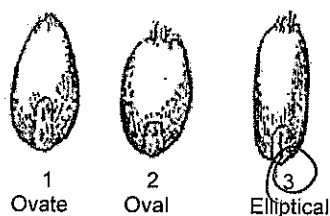
12. BEAK SHAPE:



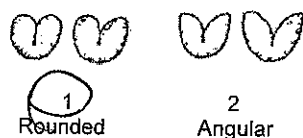
12. SHOULDER SHAPE:



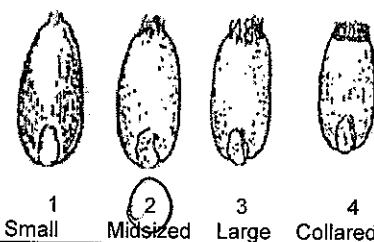
13. SEED SHAPE:



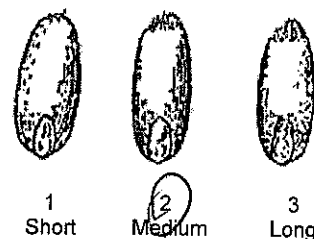
13. CHEEK SHAPE:



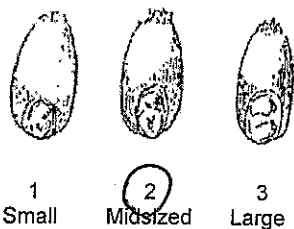
13. BRUSH SIZE



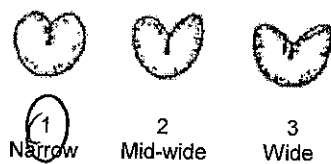
13. BRUSH HAIR LENGTH:



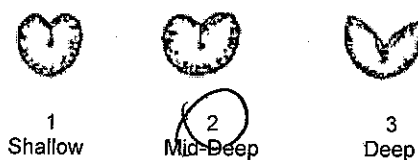
13. GERM (EMBRYO) SIZE:



13. SEED CREASE WIDTH:



13. SEED CREASE DEPTH:



200700441

Table 1. Average Yields of sublines combined as FX001B

Finley (untreated)	51.0 Bu/A
Mutant lines: (6oz/A, commercial rate of BEYOND herbicide.)	
Mutant subline 5.....	58.5
8.....	56.7
21.....	56.3
30.....	56.2
40.....	57.2
42.....	53.9
57.....	59.5
Average, 7 Mutants ...	56.9

Table 2. Milling and baking quality data on FX001B(Fineway), provided by the USDA, Western Wheat Quality Laboratory, in Pullman, WA. on a sample of grain produced near Connell, WA, in 2004/5.

Fineway vs Finley
WSU VT Nurseries 2007 Crop Year
Mean Values Student t from Comparison Group

Variety	N	Years In Study	Test Weight #/BU	Wheat Protein %	Single Kernel Hardness	Single Kernel Weight mg	Flour Yield %	Flour Ash %	Milling Score	Flour Protein %	Mixograph Absorption %	Water Absorption %	Bread Baking				
													Crumb Ranking	Loaf Volume cc	Loaf Potential cc	Dough Score	
Fineway Mean Values	5	1	63.4	12.3	68.4	36.92	71.8	0.332	89.9	11	0	65.2	68.3	979	3.8	111	0.65
Finley Mean Values	5	1	63.6	12.9	69.4	37.12	72.3	0.336	90.6	11.4		65.3	68.4	992	4.0	124	0.85
FINEWAY t scores	5	1	-0.45	1.61	-2.25	0.28	-0.66	0.59	-0.81	0.86		0.12	-0.04	0.54	-0.53	-0.44	-1.12

200700441

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E

STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) Northwest Plant Breeding Co	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER FX 001B	3. VARIETY NAME
4. ADDRESS (Street and No., R.F.D. No., City, State, and ZIP and Country) 2001 Country Club Rd. Pullman, WA 99163	5. TELEPHONE (include area code) (509) 334-4404	6. FAX (include area code) (509) 334-5320
7. PVPO NUMBER #200700441		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain

☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. National or a U.S. based company? If no, give name of country

☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☒ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☒ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (If needed, use the reverse for extra space):

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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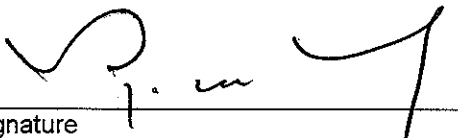
To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S) Northwest Plant Breeding Co.	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 2001 Country Club Rd. Pullman, WA 99163	TEMPORARY OR EXPERIMENTAL DESIGNATION FX001B
NAME OF OWNER REPRESENTATIVE (S) Calvin F. Ronzak - Chairman Tim Loughney, President	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) SAME Same	VARIETY NAME FINEARTY FOR OFFICIAL USE ONLY PVPO NUMBER #200700441

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Signature 

Date 9-6-07